CLAIMS

What is claimed is:

1. A pressure relief apparatus for use within a pressurized interior area of a mobile platform, said apparatus comprising:

a main body secured to a floor structure of the mobile platform; and

at least one blow out plug having a perimeter at least partially formed by a recessed portion of the pressure relief apparatus;

wherein the recessed portion is adapted to sever if a pressure differential between a upper lobe and lower lobe of the mobile platform exceeds a predetermined threshold, thereby at least partially separating the blow out plug from the main body.

2. The apparatus according to Claim 1, further comprising a utility aperture for routing utilities between the upper lobe and the lower lobe.

3. The apparatus according to Claim 1, wherein the recessed portion extends along only a portion of the perimeter.

4. The apparatus according to Claim 3, wherein the recessed portion extends along the entire perimeter.

5. The apparatus according to Claim 1, wherein the recessed portion forms intermittent perforations extending along at least a portion of the perimeter, wherein the perforations extend entirely through a thickness of the pressure relief apparatus.

6. The apparatus according to Claim 1, further comprising a portion of the perimeter with the same thickness as the body such that the blow out plug is connected to the main body in a hinge-like manner.

7. The apparatus according to Claim 1, wherein the blow out plug includes at least one an air hole.

8. The apparatus according to Claim 1, wherein the blow out plug perimeter forms a shape that corresponds to an air pathway in the floor structure.

9. A baffle for a mobile platform, said baffle comprising:

a main body portion;

at least one blow out portion; and

at least one recess defining at least part of a perimeter of the blow out portion, the recess adapted to form a web portion connecting the blow out portion with the main body portion, the web portion adapted to sever such that at least a section of the blow out portion separates from the main body portion when a pressure differential exceeds a predetermined threshold.

10. The baffle according to Claim 9, wherein the baffle further comprises at least one utility aperture for providing a passage of utilities between an upper and an lower lobe of the mobile platform.

11. The baffle according to Claim 9, wherein the recess defines approximately two-thirds of the blow out portion perimeter.

12. The baffle according to Claim 9, wherein the recess defines the entire blow out portion perimeter.

13. The baffle according to Claim 9, wherein the blow out portion comprises at least one air hole adapted to provide an air passage between an upper and an lower lobe of the mobile platform.

14. The baffle according to Claim 9, wherein the baffle further comprises at least two blow out plug portions.

15. The baffle according to Claim 9, the perimeter of the blow out plug portion forms a shape corresponding to an air pathway in a floor structure of the mobile platform.

16. A mobile platform comprising:

an upper lobe;

a lower lobe;

a floor structural between the upper lobe and the lower lobe, the floor structure including at least one air pathway; and

an insulation baffle, the insulation baffle comprising:

a main body portion;

at least one blow out portion; and

at least one recess defining at least part of a perimeter of the blow out portion, the recess adapted to form a web portion connecting the blow out portion with the main body portion, the web portion adapted to sever such that at least a section of the blow out portion separates from the main body portion when a pressure differential exceeds a predetermined threshold.

17. The mobile platform according to Claim 16, wherein the baffle further comprises at least one utility aperture for providing a passage of utilities between an upper and an lower lobe of the mobile platform.

18. The mobile platform according to Claim 16, wherein the blow out portion comprises at least one air hole adapted to provide an air passage between an upper and an lower lobe of the mobile platform.

19. The mobile platform according to Claim 16, the perimeter of the blow out plug portion forms a shape corresponding to an air pathway in a floor structure of the mobile platform.

20. A method for reducing noise transmission between a first lobe and a second lobe of a mobile platform, the method comprising:

securing a noise insulation baffle to a floor structure disposed between the first and second lobes, wherein the insulation baffle includes at least one recess that defines a main portion and at least one blow out portion, the recess further forms a severable web portion connecting the main portion and the blow out portion; and

aligning the blow out portion with an air pathway in the floor structure so that if the pressure differential between the first and second lobes exceeds a predetermined threshold, the web portion will sever allowing the blow out portion to separate from the main body portion so that the pressure differential will rapidly be reduced to approximately zero.